

Amendment to the Claims:

The listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

627
B1
1. (Currently Amended) A method for determining the voicing of a speech signal segment, comprising the steps of: dividing a speech signal segment into sub-segments, determining a value relating to the voicing of respective speech signal subsegments, comparing said values with a predetermined threshold, and making a decision on the voicing of the speech segment based on the number of the values on one side of the threshold and with emphasis on at least one last sub-segment of the segment.

2. (Original) A method of claim 1, wherein said step of making a decision is based on whether the value relating to the voicing of the last sub-segment is on the one side of the threshold.

3. (Original) A method of claim 1, wherein said step of making a decision is based on whether the values relating to the voicing of last K , sub-segments are on the one side of the threshold.

4. (Previously Presented) A method of claim 1, wherein said step of making a decision is based on whether the values relating to the voicing of substantially half of the sub-segments of the speech signal segment are on the one side of the threshold.

5. (Previously Presented) A method of claim 1, wherein said value related to voicing of respective speech signal sub-segments comprises an autocorrelation value.

6. (Currently Amended) A method of claim 5, wherein a pitch period is determined based on said autocorrelation value ~~is determined based on the estimated pitch period.~~

7. (Previously Presented) A method of claim 1, wherein the determining the voicing of a speech signal segment comprises a voiced/unvoiced decision.

8. (Currently Amended) A device for determining the voicing of a speech signal segment, comprising:

means for dividing a speech signal segment into subsegments;

means for determining a value relating to the voicing of respective speech signal sub-segments;

means for comparing said values with a predetermined threshold; and

means for making a decision on the voicing of the speech segment based on the number of the values falling on one side of the threshold and with emphasis on at least one last subsegment of the segment.

9. (Currently Amended) A device of claim 8, wherein said means for making a decision comprises means for determining if the value of the last sub-segment is on the one side of the threshold.

10. (Original) A device of claim 8, wherein said means for making decision comprises means for determining if the values of last K_{tr} sub-segments are on the one side of the threshold.

11. (Previously Presented) A device of claim 8, wherein said means for making a decision comprises means for determining whether the values relating to the voicing of substantially half of the sub-segments the speech signal segment are on the one side of the threshold.

12. (Original) A device of claim 8, wherein the said means for determining a value relating to the voicing of respective speech signal sub-segments comprises means for determining the autocorrelation value.

13. (Previously Presented) A device of claim 9, wherein said means for making a decision comprises:

means for determining whether the values relating to the voicing of substantially half of the sub-segments the speech signal segment are on the one side of the threshold.

14. (Previously Presented) A device of claim 10, wherein said means for making a decision comprises:

means for determining whether the values relating to the voicing of substantially half of the sub-segments the speech signal segment are on the one side of the threshold.

Examiner reasons as follows:

Regarding claims 1 and 8, Swaminathan discloses a method for determining voiced and unvoiced modes in a vocoder. Swaminathan's method includes the following steps: **"dividing a speech signal segment into sub-segments"** (Figs. 15 and 17, col. 9, lines 9-30); **"determining a value relating to the voicing of respective speech signal sub-segments"** (col. 8, lines 20-25); **"comparing said values with a predetermined threshold"** (Fig. 15, items 15018 et seq., Fig. 17, items 17030 et seq.); **"making a decision on the voicing of the speech segment based on the number of the values on one side of the threshold"** (Fig. 15, item 15035, Fig. 17, item 17050).

This ground of rejection is traversed for the following reasons.

Independent claim 1 recites:

A method for determining the voicing of a speech signal segment, comprising the steps of: dividing a speech signal segment into sub-segments, determining a value relating to the voicing of respective speech signal subsegments, comparing said values with a predetermined threshold, and making a decision on the voicing of the speech segment based on the number of the values on one side of the threshold and with emphasis on at least one last sub-segment of the segment.

and independent claim 8 recites:

A device for determining the voicing of a speech signal segment, comprising:
means for dividing a speech signal segment into subsegments;
means for determining a value relating to the voicing of respective speech signal sub-segments;
means for comparing said values with a predetermined threshold;
and
means for making a decision on the voicing of the speech segment based on the number of the values falling on one side of the threshold and with emphasis on at least one last subsegment of the segment.

Swaminathan does not disclose nor render obvious the making a decision on the voicing of the speech segment based on the number of the values on one side of the threshold and with emphasis on at least one last sub-segment of the segment as recited in claim 1 and in claim 8. Figs. 15 and 17 of Swaminathan disclose the